

Appl. No. 0009/710,332
Amdt. Dated March 12, 2004
Response to Office Action of September 12, 2003
Atty. Dkt No. TRNSV-013BC

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for transmymocardial coronary revascularization, said method comprising the ~~step~~ steps of:

- a) creating a transmymocardial bloodflow passageway that extends through myocardial tissue between a chamber of the heart and a coronary vein such that blood will flow from the chamber of the heart, through the bloodflow passageway and into the coronary vein; and
- b) causing the blood that flows from the chamber of the heart, through the bloodflow passageway and into the coronary vein to flow through the coronary vein in a direction opposite normal venous blood flow.

2. (Cancelled)

3. (Withdrawn)

4. (Withdrawn)

5. (Currently Amended) The method of Claim 1 wherein Step b comprises, further comprising the additional step of: b) blocking the lumen of the coronary vein at a location which is upstream of said transmymocardial proximal to the location at which the bloodflow passageway enters the coronary vein, thereby causing the blood that enters the coronary vein from the bloodflow

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passageway to flow through the coronary vein in a direction that is opposite normal venous blood flow.

6. (Currently Amended) The method of Claim 5[[3]] wherein ~~said method further comprises the steps of:~~

~~blocking the lumen of the coronary vein~~ is blocked by placing an embolic member within the lumen of the coronary vein at a location downstream of said fistulous connection.

7. (Currently Amended) The method of Claim 5 wherein the lumen of the coronary vein is blocked by 1 ~~further comprising the step of:~~

~~b)~~ placing an intraluminal valving apparatus within the lumen of the coronary vein, said intraluminal valving apparatus being alternately disposed in i) an open configuration which allows blood to flow through the lumen of the coronary vein in the direction of normal venous blood flow and ii) a closed configuration which prevents blood from flowing through the lumen of the coronary vein in the direction of normal venous bloodflow, said intraluminal valving apparatus being constructed to remain in its closed configuration until the pressure of blood within the lumen of the coronary vein distal to the intraluminal valving apparatus exceeds a predetermined maximum pressure, at which time the intraluminal valving apparatus will transition to its open configuration.
~~bloodflow passageway, said tissue valve will move to its closed position.~~

8. (Withdrawn)

9. (Withdrawn)

10. (Withdrawn)

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11. (Withdrawn)

12. (Withdrawn)

13. (Withdrawn)

14. (Withdrawn)

15. (Withdrawn)

16. (Withdrawn)

17. (Withdrawn)

18. (Withdrawn)

19. (Withdrawn)

20. (Withdrawn)

21. (Withdrawn)

22. (Withdrawn)

23. (Withdrawn)

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24. (Withdrawn)

25. (Withdrawn)

26. (Withdrawn)

27. (Withdrawn)

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Canceled)

34. (Canceled)

35. (Canceled)

36. (Canceled)

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37. (Canceled)

38. (Canceled)

39. (Canceled)

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50. (Canceled)

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63. (Canceled)

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64. (Canceled)

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77. (Canceled)

78. (Canceled)

79. (Canceled)

80. (Canceled)

81. (Canceled)

82. (Canceled)

83. (New) The method of Claim 1 further comprising the step of:

c) placing an intraluminal valving apparatus within the lumen of the coronary vein, said intraluminal valving apparatus comprising a generally cylindrical body and having an axial bore which extends longitudinally therethrough and at least one occluder member positioned within said axial bore, said at least one occluder member being alternately moveable between: i) an open position whereby systolic blood is permitted to pass from the bloodflow passageway into the lumen of the coronary vein, and ii) a closed position whereby blood is prevented from backflowing from the lumen of the coronary vein into the bloodflow passageway.

84. (New) The method of Claim 83 wherein the intraluminal valving apparatus further comprises a side aperture formed in the generally cylindrical body of said intraluminal valving apparatus, and wherein said side aperture is aligned with the bloodflow passageway such that blood from the bloodflow passageway may flow through said side aperture and into the axial bore of the intraluminal valving apparatus.

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85. (New) The method of Claim 83 wherein said at least one occluder member is configured to close off said side aperture when in its closed position, such that a subsequent increase in blood pressure within the bloodflow passageway will move said occluder member to said open position, thereby reopening said side aperture.

86. (New) The method of Claim 85 wherein said at least one occluder member is positioned within the axial bore of the intraluminal valving apparatus such that during systole, bloodflow which passes from the bloodflow passageway into the axial bore of the intraluminal valving apparatus will force the occluder member to its open position thereby allowing bloodflow from the bloodflow passageway into the lumen of the coronary vein and, thereafter, during diastole, the occluder member will move to its closed position, thereby preventing blood from backflowing from the lumen of the coronary vein into the bloodflow passageway.

87. (New) The method of Claim 84 wherein the intraluminal valving apparatus further comprises a blocking member which closes off the axial bore of the intraluminal valving apparatus proximal to said side aperture.

88. (New) The method Claim 84 wherein the intraluminal valving apparatus further comprises a secondary occluder member that closes off the axial bore of the intraluminal valving apparatus proximal to the side aperture.

89. (New) The method of Claim 83 wherein the intraluminal valving apparatus is positioned within the coronary vein at a location distal to the location at which the bloodflow passageway enters the coronary vein, and wherein said at least one occluder member permits blood to flow through the lumen of the coronary vein in a direction opposite normal venous flow when said at least one

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occluder member is in its open position, and to prevent blood from backflowing through the coronary vein in the direction of normal venous flow when said at least one occluder member is in its closed position.

90. (New) The method of Claim 83 wherein two of said intraluminal valving apparatus are positioned in the lumen of the coronary vein, one of said valving apparatus being located proximal to the location at which the bloodflow passageway enters the coronary vein and the other of said valving apparatus being positioned distal to the location at which the bloodflow passageway enters the coronary vein.